

# Solid State USB RF SP8T Switch

# USB-1SP8T-183

## Typical Performance Data

TEST CONDITIONS: @Temperature = 0°C, Pin=8dBm

Frequency (MHz)	Insertion Loss							
	(dB)							
	COM-J1	COM-J2	COM-J3	COM-J4	COM-J5	COM-J6	COM-J7	COM-J8
50	1.60	1.61	1.60	1.60	1.60	1.60	1.61	1.61
250	1.81	1.82	1.79	1.79	1.78	1.78	1.82	1.82
500	1.99	2.00	1.93	1.92	1.92	1.92	2.00	1.99
750	2.13	2.14	2.04	2.04	2.04	2.04	2.13	2.13
1000	2.23	2.24	2.16	2.16	2.16	2.16	2.23	2.23
1250	2.24	2.26	2.21	2.21	2.21	2.21	2.25	2.25
1500	2.29	2.30	2.26	2.27	2.27	2.27	2.30	2.30
1750	2.38	2.40	2.31	2.32	2.31	2.31	2.39	2.40
2000	2.47	2.49	2.34	2.35	2.34	2.34	2.48	2.48
2250	2.53	2.55	2.38	2.38	2.38	2.38	2.54	2.54
2500	2.58	2.60	2.44	2.45	2.44	2.44	2.59	2.59
2750	2.64	2.65	2.50	2.51	2.51	2.50	2.65	2.65
3000	2.72	2.73	2.57	2.58	2.57	2.57	2.73	2.72
3500	2.84	2.84	2.65	2.67	2.65	2.64	2.82	2.83
4000	2.93	2.93	2.70	2.72	2.70	2.70	2.91	2.92
4500	3.01	3.01	2.75	2.77	2.75	2.75	2.99	2.99
5000	3.05	3.07	2.82	2.83	2.83	2.82	3.05	3.06
5500	3.14	3.16	2.91	2.91	2.94	2.91	3.17	3.17
6000	3.28	3.28	2.96	2.96	2.97	2.96	3.31	3.31
6500	3.30	3.31	3.00	3.00	2.99	3.00	3.31	3.32
7000	3.56	3.55	3.15	3.17	3.17	3.16	3.55	3.57
7500	3.62	3.63	3.35	3.35	3.41	3.36	3.64	3.64
8000	3.69	3.68	3.44	3.42	3.48	3.45	3.71	3.72
8500	3.85	3.84	3.47	3.44	3.48	3.48	3.86	3.85
9000	3.90	3.89	3.52	3.48	3.51	3.50	3.93	3.91
9500	3.97	3.94	3.59	3.52	3.58	3.54	4.00	3.96
10000	4.05	4.04	3.64	3.60	3.63	3.63	4.08	4.05
10500	4.11	4.08	3.68	3.61	3.66	3.65	4.14	4.11
11000	4.21	4.20	3.72	3.68	3.71	3.72	4.26	4.23
11500	4.27	4.23	3.85	3.78	3.87	3.80	4.30	4.25
12000	4.39	4.35	3.98	3.89	4.02	3.90	4.43	4.39
12500	4.55	4.49	4.03	3.94	4.06	3.97	4.55	4.51
13000	4.69	4.67	4.11	4.07	4.15	4.10	4.70	4.69
13500	4.82	4.81	4.27	4.25	4.31	4.27	4.83	4.82
14000	4.98	4.98	4.30	4.27	4.33	4.32	5.03	5.02
14500	5.00	4.97	4.36	4.30	4.43	4.37	5.03	4.97
15000	5.10	5.01	4.42	4.33	4.49	4.44	5.14	5.05
15500	5.08	5.08	4.41	4.37	4.43	4.51	5.08	5.06
16000	5.14	5.13	4.54	4.45	4.54	4.53	5.18	5.15
16500	5.21	5.21	4.61	4.53	4.62	4.57	5.25	5.22
17000	5.35	5.40	4.71	4.61	4.71	4.65	5.42	5.39
17250	5.44	5.45	4.73	4.64	4.72	4.68	5.50	5.46
17500	5.49	5.51	4.77	4.68	4.75	4.73	5.60	5.56
17750	5.62	5.59	4.87	4.76	4.85	4.80	5.69	5.65
18000	5.66	5.61	4.97	4.76	4.94	4.80	5.77	5.64
18250	5.64	5.60	5.01	4.80	5.00	4.84	5.81	5.62
18500	5.76	5.73	5.13	4.89	5.14	4.92	5.92	5.74
18750	5.83	5.84	5.24	4.93	5.28	4.99	6.07	5.85
19000	5.92	5.96	5.30	4.99	5.34	5.09	6.15	5.95
19250	5.93	5.98	5.36	5.04	5.38	5.17	6.18	5.96
19500	5.84	5.83	5.37	4.96	5.37	5.12	6.16	5.84
19750	5.89	5.89	5.36	4.99	5.32	5.15	6.17	5.89
20000	5.98	6.05	5.39	5.06	5.34	5.20	6.25	6.01

**Notes**

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# Solid State USB RF SP8T Switch

# USB-1SP8T-183

## Typical Performance Data

TEST CONDITIONS: @Temperature = 0°C, Pin=8dBm

Frequency (MHz)	VSWR, Active Ports (:1)								
	COM	J1	J2	J3	J4	J5	J6	J7	J8
50	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26
250	1.17	1.18	1.18	1.19	1.19	1.18	1.19	1.18	1.18
500	1.11	1.13	1.13	1.17	1.17	1.16	1.18	1.14	1.13
750	1.03	1.10	1.10	1.16	1.15	1.15	1.16	1.10	1.10
1000	1.06	1.10	1.09	1.14	1.14	1.13	1.15	1.07	1.08
1250	1.11	1.11	1.11	1.13	1.13	1.13	1.13	1.10	1.10
1500	1.14	1.13	1.14	1.11	1.12	1.12	1.10	1.14	1.14
1750	1.16	1.17	1.17	1.08	1.09	1.10	1.06	1.18	1.17
2000	1.14	1.19	1.17	1.02	1.04	1.04	1.03	1.16	1.16
2250	1.08	1.14	1.12	1.05	1.04	1.03	1.07	1.10	1.09
2500	1.06	1.04	1.02	1.13	1.11	1.11	1.13	1.02	1.00
2750	1.16	1.12	1.10	1.20	1.18	1.18	1.19	1.13	1.11
3000	1.22	1.19	1.18	1.23	1.22	1.22	1.22	1.20	1.18
3500	1.19	1.16	1.14	1.19	1.19	1.19	1.18	1.13	1.12
4000	1.27	1.15	1.11	1.12	1.11	1.11	1.09	1.14	1.11
4500	1.11	1.17	1.13	1.10	1.08	1.10	1.06	1.16	1.12
5000	1.21	1.15	1.12	1.11	1.09	1.14	1.08	1.11	1.09
5500	1.22	1.11	1.06	1.19	1.16	1.25	1.16	1.15	1.12
6000	1.07	1.22	1.18	1.16	1.15	1.20	1.14	1.24	1.21
6500	1.17	1.05	1.05	1.07	1.07	1.03	1.06	1.05	1.05
7000	1.36	1.35	1.28	1.21	1.25	1.27	1.23	1.29	1.29
7500	1.20	1.17	1.17	1.32	1.34	1.44	1.34	1.14	1.13
8000	1.30	1.17	1.12	1.25	1.25	1.34	1.29	1.16	1.18
8500	1.38	1.27	1.25	1.10	1.09	1.13	1.16	1.24	1.24
9000	1.24	1.08	1.11	1.05	1.06	1.04	1.01	1.07	1.06
9500	1.24	1.08	1.04	1.15	1.13	1.14	1.11	1.06	1.05
10000	1.23	1.09	1.06	1.12	1.10	1.11	1.15	1.06	1.04
10500	1.21	1.03	1.09	1.06	1.07	1.04	1.14	1.08	1.11
11000	1.10	1.14	1.17	1.04	1.13	1.10	1.16	1.17	1.22
11500	1.16	1.13	1.12	1.23	1.28	1.31	1.24	1.13	1.14
12000	1.14	1.28	1.29	1.38	1.37	1.46	1.31	1.29	1.32
12500	1.07	1.32	1.34	1.27	1.27	1.33	1.22	1.30	1.34
13000	1.38	1.32	1.38	1.20	1.27	1.28	1.20	1.30	1.36
13500	1.33	1.23	1.29	1.29	1.37	1.36	1.29	1.22	1.27
14000	1.53	1.29	1.34	1.12	1.18	1.18	1.15	1.34	1.37
14500	1.49	1.12	1.20	1.08	1.12	1.22	1.12	1.09	1.11
15000	1.41	1.15	1.07	1.07	1.10	1.19	1.20	1.22	1.19
15500	1.34	1.08	1.15	1.16	1.15	1.13	1.32	1.02	1.06
16000	1.24	1.21	1.29	1.36	1.30	1.36	1.37	1.29	1.33
16500	1.18	1.10	1.18	1.30	1.23	1.35	1.23	1.18	1.22
17000	1.17	1.15	1.27	1.22	1.16	1.27	1.12	1.22	1.26
17250	1.25	1.18	1.32	1.17	1.13	1.21	1.07	1.26	1.34
17500	1.35	1.23	1.33	1.13	1.10	1.15	1.02	1.32	1.39
17750	1.44	1.25	1.29	1.05	1.06	1.07	1.05	1.23	1.36
18000	1.51	1.14	1.21	1.03	1.12	1.09	1.06	1.10	1.28
18250	1.32	1.15	1.20	1.12	1.19	1.22	1.15	1.12	1.23
18500	1.24	1.28	1.30	1.15	1.23	1.27	1.19	1.19	1.32
18750	1.32	1.34	1.44	1.23	1.28	1.34	1.28	1.25	1.43
19000	1.46	1.33	1.46	1.27	1.30	1.39	1.37	1.28	1.44
19250	1.46	1.20	1.36	1.27	1.27	1.35	1.40	1.18	1.33
19500	1.38	1.06	1.22	1.24	1.18	1.30	1.36	1.08	1.17
19750	1.28	1.12	1.21	1.20	1.11	1.20	1.32	1.06	1.17
20000	1.31	1.16	1.33	1.18	1.06	1.15	1.28	1.14	1.25

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# Solid State USB RF SP8T Switch

# USB-1SP8T-183

## Typical Performance Data

TEST CONDITIONS: @Temperature = 0°C, Pin=8dBm

Frequency (MHz)	VSWR, Internally Terminated Ports (:1)							
	J1	J2	J3	J4	J5	J6	J7	J8
50	1.10	1.10	1.11	1.11	1.11	1.11	1.10	1.10
250	1.07	1.06	1.08	1.08	1.08	1.08	1.06	1.06
500	1.08	1.07	1.08	1.09	1.09	1.09	1.07	1.07
750	1.09	1.08	1.09	1.09	1.09	1.09	1.08	1.08
1000	1.09	1.08	1.09	1.09	1.10	1.10	1.07	1.07
1250	1.09	1.08	1.09	1.09	1.10	1.10	1.07	1.07
1500	1.09	1.08	1.09	1.09	1.10	1.10	1.07	1.07
1750	1.09	1.08	1.09	1.09	1.10	1.10	1.07	1.06
2000	1.09	1.07	1.08	1.08	1.10	1.10	1.06	1.06
2250	1.09	1.07	1.08	1.08	1.09	1.09	1.05	1.05
2500	1.08	1.06	1.07	1.07	1.08	1.08	1.04	1.04
2750	1.07	1.05	1.06	1.05	1.06	1.06	1.03	1.03
3000	1.05	1.04	1.04	1.04	1.05	1.04	1.03	1.02
3500	1.05	1.04	1.04	1.04	1.04	1.04	1.05	1.03
4000	1.09	1.06	1.07	1.08	1.09	1.09	1.10	1.07
4500	1.13	1.09	1.11	1.12	1.15	1.14	1.15	1.11
5000	1.17	1.13	1.15	1.15	1.20	1.19	1.18	1.15
5500	1.22	1.15	1.18	1.19	1.25	1.25	1.22	1.18
6000	1.23	1.17	1.19	1.19	1.28	1.27	1.23	1.20
6500	1.24	1.19	1.18	1.20	1.27	1.29	1.22	1.21
7000	1.23	1.18	1.16	1.18	1.25	1.27	1.19	1.19
7500	1.20	1.17	1.15	1.15	1.24	1.23	1.17	1.17
8000	1.16	1.15	1.13	1.11	1.19	1.19	1.14	1.14
8500	1.13	1.13	1.10	1.10	1.15	1.15	1.11	1.10
9000	1.08	1.11	1.08	1.07	1.11	1.10	1.09	1.07
9500	1.05	1.09	1.03	1.05	1.05	1.07	1.06	1.06
10000	1.02	1.09	1.06	1.04	1.06	1.04	1.08	1.10
10500	1.10	1.11	1.12	1.12	1.12	1.11	1.12	1.14
11000	1.18	1.17	1.19	1.20	1.20	1.21	1.17	1.20
11500	1.25	1.23	1.27	1.26	1.29	1.28	1.24	1.25
12000	1.31	1.28	1.31	1.32	1.34	1.35	1.27	1.29
12500	1.29	1.32	1.29	1.29	1.34	1.34	1.26	1.29
13000	1.25	1.31	1.23	1.24	1.29	1.29	1.21	1.26
13500	1.18	1.25	1.15	1.14	1.22	1.22	1.16	1.21
14000	1.10	1.16	1.04	1.03	1.13	1.12	1.10	1.13
14500	1.07	1.05	1.06	1.07	1.10	1.07	1.12	1.10
15000	1.11	1.05	1.17	1.15	1.15	1.12	1.18	1.15
15500	1.16	1.11	1.24	1.21	1.22	1.18	1.23	1.20
16000	1.17	1.16	1.27	1.23	1.25	1.21	1.24	1.23
16500	1.14	1.16	1.23	1.20	1.22	1.20	1.20	1.22
17000	1.14	1.15	1.18	1.21	1.19	1.21	1.15	1.19
17250	1.11	1.13	1.13	1.17	1.15	1.18	1.11	1.18
17500	1.10	1.12	1.12	1.17	1.14	1.18	1.09	1.16
17750	1.12	1.11	1.10	1.19	1.10	1.18	1.04	1.14
18000	1.06	1.12	1.07	1.12	1.06	1.16	1.02	1.15
18250	1.11	1.12	1.08	1.17	1.08	1.19	1.04	1.15
18500	1.08	1.11	1.09	1.10	1.07	1.15	1.03	1.12
18750	1.06	1.13	1.12	1.10	1.09	1.15	1.01	1.14
19000	1.06	1.15	1.10	1.05	1.09	1.14	1.02	1.15
19250	1.09	1.15	1.09	1.02	1.09	1.14	1.04	1.17
19500	1.12	1.16	1.07	1.02	1.10	1.16	1.06	1.17
19750	1.13	1.15	1.05	1.05	1.11	1.16	1.09	1.16
20000	1.16	1.16	1.05	1.10	1.13	1.17	1.08	1.16

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# USB-1SP8T-183

## Typical Performance Data

TEST CONDITIONS: @Temperature = 0°C, Pin=8dBm

Frequency (MHz)	Isolation @ Active states (dB)							
	COM-1	COM-3	COM-5	COM-7	J2-J3	J4-J5	J6-J7	J7-J8
50	98.63	87.74	91.35	87.03	96.50	97.37	99.02	90.54
250	83.11	81.98	82.47	83.00	105.85	104.69	120.82	88.10
500	79.24	77.31	77.59	78.72	109.74	107.33	111.36	85.17
750	75.38	74.01	73.95	74.79	112.97	105.60	103.49	81.22
1000	72.64	71.44	71.18	72.30	102.64	110.81	113.93	78.45
1250	70.62	69.62	69.32	70.31	102.84	105.31	109.59	75.34
1500	69.32	68.29	68.07	69.07	106.32	112.11	105.04	72.92
1750	68.35	67.24	67.08	68.12	100.37	106.47	109.61	71.34
2000	67.69	66.53	66.27	67.35	98.46	103.59	125.69	71.62
2250	67.28	65.99	65.95	66.82	118.18	116.85	105.90	71.73
2500	66.91	65.57	65.36	66.31	112.01	111.21	101.99	71.39
2750	66.49	65.28	65.01	66.26	104.08	130.94	105.88	70.16
3000	66.31	64.95	64.60	65.79	117.45	115.94	110.03	69.46
3500	65.72	64.50	64.15	65.28	113.72	118.27	121.33	68.75
4000	65.43	64.09	63.69	64.87	105.35	98.65	116.14	68.83
4500	65.11	63.82	63.52	64.73	106.25	109.53	103.74	68.14
5000	64.99	63.65	63.60	64.78	99.23	101.54	119.11	67.49
5500	64.91	63.57	63.56	64.62	93.66	102.12	110.79	67.22
6000	64.93	63.42	63.34	64.72	88.80	114.77	112.87	68.02
6500	64.49	63.04	62.89	64.28	98.33	100.74	103.26	67.92
7000	63.75	62.46	62.31	63.64	96.98	106.59	101.88	66.44
7500	62.84	61.96	61.70	62.69	100.15	100.91	111.69	67.78
8000	62.09	61.60	61.12	62.07	92.29	103.95	95.66	70.80
8500	61.61	61.26	60.81	61.81	88.69	101.71	103.96	68.60
9000	61.49	61.17	60.73	61.68	87.21	101.12	96.91	68.28
9500	61.50	61.38	60.83	61.72	89.45	99.20	103.66	69.36
10000	61.67	61.70	61.12	62.01	92.70	101.84	94.17	69.36
10500	61.89	61.96	61.56	62.37	99.92	98.07	113.01	69.38
11000	62.28	62.26	61.86	62.71	101.43	100.74	103.62	67.91
11500	62.55	62.55	62.22	62.94	96.87	101.97	100.95	66.33
12000	62.84	62.91	62.44	63.13	91.49	99.25	99.69	66.52
12500	63.20	63.22	62.70	63.42	89.53	104.17	98.62	66.05
13000	63.57	63.58	63.17	63.96	92.15	104.14	94.20	64.96
13500	63.97	63.91	63.41	64.23	98.98	103.96	95.96	64.59
14000	63.95	63.57	63.39	63.70	92.93	95.67	93.61	62.71
14500	63.41	62.64	62.74	62.64	93.53	101.14	92.63	62.13
15000	62.61	61.39	62.13	61.73	92.14	102.30	87.06	63.03
15500	61.89	60.42	61.46	61.00	88.82	93.35	88.93	60.51
16000	61.05	59.48	60.57	60.58	90.78	93.26	90.17	59.42
16500	60.13	58.53	59.58	59.65	90.06	91.87	91.08	59.77
17000	59.16	57.49	58.61	58.66	91.37	91.15	88.22	59.09
17250	58.71	57.02	58.26	58.21	91.56	92.07	87.69	58.43
17500	58.29	56.51	57.87	57.78	97.10	91.61	87.04	57.56
17750	57.91	56.12	57.61	57.39	94.26	89.49	88.26	56.86
18000	57.58	55.75	57.43	56.99	85.86	86.66	86.62	56.74
18250	57.17	55.34	57.00	56.29	85.47	86.16	89.14	57.18
18500	56.90	55.02	56.61	55.95	82.51	89.96	94.36	57.39
18750	56.47	54.67	56.17	55.51	80.57	90.26	90.62	56.56
19000	56.09	54.32	55.81	55.13	77.15	92.41	86.59	55.42
19250	55.64	53.89	55.37	54.63	76.16	90.36	87.22	54.61
19500	55.03	53.45	54.92	54.22	75.80	91.28	88.44	54.33
19750	54.66	53.11	54.53	53.92	75.78	89.61	87.44	54.77
20000	54.44	52.78	54.21	53.70	76.09	87.72	85.55	55.23

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# Solid State USB RF SP8T Switch

# USB-1SP8T-183

## Typical Performance Data

TEST CONDITIONS: @Temperature = 0°C, Pin=8dBm

Frequency (MHz)	Isolation @ Disconnected state (dB)							
	COM-1	COM-2	COM-3	COM-4	COM-5	COM-6	COM-7	COM-8
50	104.42	85.76	104.98	84.24	85.80	82.75	98.64	84.14
250	106.95	97.73	115.69	110.87	80.08	80.30	115.94	102.57
500	117.69	106.77	122.56	107.05	75.79	75.56	106.37	104.38
750	101.97	107.71	108.58	99.38	71.92	72.03	108.09	103.00
1000	121.98	106.12	115.89	102.07	69.43	69.85	106.96	104.62
1250	114.25	108.23	112.92	100.34	67.90	68.10	103.56	113.61
1500	114.22	106.15	105.87	106.26	66.84	66.96	107.54	106.75
1750	102.69	105.06	116.09	106.52	65.79	65.90	105.44	109.91
2000	111.63	103.63	110.96	106.43	64.95	64.99	105.76	103.18
2250	107.59	106.82	103.82	107.93	64.11	64.21	107.12	105.64
2500	109.31	114.20	103.29	103.39	63.47	63.47	102.51	115.27
2750	111.19	104.94	106.86	100.85	62.89	62.93	111.29	102.29
3000	110.94	111.80	113.65	102.42	62.64	62.76	106.09	115.51
3500	113.87	105.93	108.75	116.42	62.76	62.73	108.71	104.70
4000	109.86	103.47	112.72	102.52	63.12	63.02	115.38	106.41
4500	117.65	108.89	105.64	106.71	63.47	63.24	107.38	106.90
5000	110.55	109.52	107.23	103.94	64.12	63.90	106.67	109.88
5500	109.06	103.88	117.45	102.90	65.08	64.74	124.33	120.96
6000	125.59	115.64	106.58	103.42	65.64	65.40	100.69	101.20
6500	110.91	105.95	108.24	118.73	65.95	65.59	109.57	104.88
7000	112.28	107.08	117.27	105.79	66.45	66.59	114.57	114.80
7500	108.33	113.04	107.79	104.50	67.79	68.60	102.69	106.30
8000	104.51	108.06	104.46	106.84	68.70	70.43	106.11	103.87
8500	119.54	111.46	114.69	105.04	68.94	71.38	103.87	108.55
9000	106.78	106.24	112.89	107.21	68.11	71.28	105.06	101.74
9500	103.31	109.82	105.50	104.64	67.01	70.15	112.49	100.49
10000	99.98	106.13	112.54	107.56	66.25	68.36	113.59	100.74
10500	118.45	100.94	102.77	100.73	65.24	66.81	101.67	110.73
11000	106.25	101.64	120.62	121.70	63.65	64.74	110.01	102.28
11500	103.07	101.28	109.69	121.26	62.46	62.99	99.10	97.21
12000	115.26	108.30	107.76	103.28	62.02	62.15	109.00	101.08
12500	106.30	108.82	111.68	110.87	61.75	61.69	110.36	107.20
13000	106.46	103.21	110.81	108.76	60.75	60.36	97.96	111.70
13500	108.47	103.71	104.76	104.04	59.44	58.86	96.60	101.54
14000	104.69	113.20	97.95	96.43	58.99	58.22	97.28	98.86
14500	107.72	98.91	100.10	96.32	58.72	57.91	96.36	98.52
15000	97.72	91.71	96.21	91.46	57.70	56.84	88.77	89.13
15500	100.32	96.52	97.21	105.28	56.10	55.11	95.71	100.25
16000	103.37	103.01	103.19	104.68	55.26	54.16	99.42	97.87
16500	98.87	99.85	100.32	96.78	55.29	54.17	101.56	102.34
17000	103.51	99.22	100.14	96.55	55.06	53.90	98.47	112.06
17250	103.31	101.36	104.16	96.41	54.96	53.70	95.97	96.00
17500	104.13	96.83	93.59	89.34	54.96	53.65	93.62	99.94
17750	105.66	94.62	92.91	92.38	55.06	53.72	99.85	102.44
18000	107.90	104.19	91.88	97.58	55.11	53.73	101.30	100.66
18250	102.16	99.83	98.58	101.70	55.03	53.58	93.90	92.13
18500	98.43	101.39	104.87	98.58	54.76	53.36	86.11	83.83
18750	115.75	100.61	100.02	98.23	54.22	52.87	90.92	88.87
19000	101.10	106.87	98.37	94.55	53.56	52.29	94.43	91.36
19250	102.62	102.89	97.33	92.11	52.95	51.72	92.56	94.89
19500	105.16	99.93	99.33	99.07	52.36	51.13	91.35	94.09
19750	96.91	112.80	103.54	94.44	51.94	50.73	91.57	93.60
20000	97.68	109.35	101.13	97.51	51.62	50.45	94.52	90.26

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# Solid State USB RF SP8T Switch

# USB-1SP8T-183

## Typical Performance Data

TEST CONDITIONS: @Temperature = +25°C, Pin=8dBm

Frequency (MHz)	Insertion Loss							
	(dB)							
	COM-J1	COM-J2	COM-J3	COM-J4	COM-J5	COM-J6	COM-J7	COM-J8
50	1.64	1.65	1.64	1.65	1.65	1.65	1.66	1.67
250	1.87	1.88	1.84	1.84	1.85	1.85	1.89	1.89
500	2.05	2.07	1.99	1.99	1.99	1.99	2.08	2.08
750	2.20	2.21	2.11	2.11	2.12	2.12	2.22	2.22
1000	2.30	2.31	2.22	2.23	2.23	2.24	2.31	2.32
1250	2.32	2.33	2.29	2.30	2.30	2.30	2.34	2.34
1500	2.37	2.38	2.35	2.36	2.36	2.36	2.39	2.40
1750	2.47	2.49	2.40	2.42	2.42	2.41	2.49	2.50
2000	2.57	2.59	2.43	2.45	2.45	2.45	2.59	2.59
2250	2.63	2.65	2.47	2.48	2.49	2.48	2.65	2.65
2500	2.69	2.70	2.53	2.55	2.55	2.55	2.71	2.71
2750	2.74	2.75	2.59	2.62	2.61	2.61	2.76	2.77
3000	2.83	2.83	2.67	2.69	2.69	2.67	2.84	2.84
3500	2.95	2.96	2.75	2.78	2.77	2.76	2.94	2.95
4000	3.05	3.05	2.81	2.83	2.82	2.82	3.04	3.05
4500	3.13	3.13	2.86	2.89	2.88	2.87	3.12	3.13
5000	3.18	3.20	2.94	2.96	2.97	2.95	3.19	3.20
5500	3.27	3.28	3.02	3.04	3.07	3.03	3.31	3.31
6000	3.41	3.41	3.08	3.09	3.11	3.08	3.45	3.45
6500	3.43	3.44	3.12	3.13	3.13	3.12	3.45	3.45
7000	3.72	3.70	3.28	3.31	3.32	3.29	3.71	3.72
7500	3.79	3.79	3.49	3.51	3.57	3.51	3.80	3.79
8000	3.87	3.86	3.59	3.58	3.65	3.61	3.88	3.88
8500	4.03	4.02	3.63	3.61	3.65	3.64	4.03	4.02
9000	4.08	4.08	3.68	3.66	3.69	3.67	4.10	4.09
9500	4.14	4.12	3.74	3.69	3.75	3.70	4.17	4.14
10000	4.21	4.22	3.78	3.76	3.79	3.78	4.24	4.24
10500	4.29	4.29	3.83	3.79	3.83	3.82	4.33	4.30
11000	4.38	4.40	3.89	3.88	3.90	3.91	4.44	4.44
11500	4.47	4.47	4.03	4.01	4.07	4.01	4.50	4.48
12000	4.59	4.61	4.15	4.11	4.20	4.10	4.63	4.63
12500	4.75	4.73	4.21	4.15	4.25	4.17	4.75	4.73
13000	4.86	4.87	4.28	4.25	4.33	4.26	4.87	4.86
13500	5.01	5.03	4.44	4.43	4.49	4.44	5.01	5.02
14000	5.14	5.18	4.49	4.47	4.54	4.51	5.17	5.19
14500	5.22	5.24	4.55	4.52	4.63	4.59	5.23	5.21
15000	5.32	5.28	4.64	4.58	4.73	4.70	5.35	5.29
15500	5.39	5.43	4.67	4.64	4.72	4.79	5.38	5.38
16000	5.41	5.42	4.75	4.67	4.77	4.75	5.43	5.42
16500	5.49	5.47	4.86	4.76	4.89	4.77	5.49	5.48
17000	5.59	5.63	4.91	4.80	4.93	4.81	5.61	5.62
17250	5.69	5.71	4.91	4.82	4.92	4.82	5.68	5.71
17500	5.75	5.79	4.98	4.88	4.97	4.87	5.76	5.80
17750	5.79	5.80	5.04	4.93	5.03	4.92	5.82	5.83
18000	5.82	5.81	5.16	4.97	5.15	4.95	5.90	5.82
18250	5.89	5.90	5.25	5.04	5.26	5.02	6.00	5.90
18500	6.00	6.02	5.35	5.13	5.37	5.12	6.11	6.01
18750	6.06	6.11	5.45	5.16	5.48	5.17	6.24	6.09
19000	6.15	6.19	5.51	5.21	5.55	5.25	6.31	6.17
19250	6.19	6.22	5.59	5.26	5.61	5.33	6.36	6.18
19500	6.18	6.16	5.63	5.24	5.62	5.33	6.37	6.11
19750	6.19	6.18	5.61	5.26	5.56	5.34	6.35	6.15
20000	6.25	6.31	5.62	5.30	5.55	5.36	6.41	6.24

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# Solid State USB RF SP8T Switch

# USB-1SP8T-183

## Typical Performance Data

TEST CONDITIONS: @Temperature = +25°C, Pin=8dBm

Frequency (MHz)	VSWR, Active Ports (:1)								
	COM	J1	J2	J3	J4	J5	J6	J7	J8
50	1.27	1.27	1.27	1.27	1.26	1.27	1.27	1.27	1.27
250	1.19	1.20	1.20	1.21	1.21	1.20	1.21	1.20	1.20
500	1.11	1.14	1.14	1.18	1.18	1.18	1.19	1.15	1.14
750	1.03	1.10	1.10	1.17	1.16	1.16	1.17	1.09	1.09
1000	1.07	1.09	1.08	1.15	1.15	1.14	1.16	1.07	1.07
1250	1.12	1.10	1.11	1.13	1.13	1.13	1.13	1.10	1.11
1500	1.16	1.14	1.15	1.11	1.12	1.12	1.10	1.15	1.15
1750	1.17	1.18	1.18	1.08	1.08	1.09	1.06	1.19	1.18
2000	1.14	1.19	1.18	1.02	1.03	1.04	1.02	1.18	1.17
2250	1.08	1.14	1.12	1.05	1.04	1.04	1.07	1.10	1.10
2500	1.07	1.04	1.02	1.13	1.12	1.11	1.14	1.02	1.01
2750	1.16	1.11	1.10	1.20	1.18	1.18	1.19	1.13	1.11
3000	1.22	1.20	1.18	1.23	1.22	1.23	1.22	1.20	1.18
3500	1.19	1.18	1.16	1.21	1.20	1.20	1.19	1.14	1.13
4000	1.27	1.14	1.10	1.13	1.12	1.12	1.10	1.12	1.10
4500	1.12	1.17	1.14	1.10	1.07	1.09	1.05	1.17	1.13
5000	1.24	1.15	1.12	1.11	1.09	1.14	1.07	1.11	1.09
5500	1.22	1.10	1.05	1.18	1.15	1.24	1.15	1.14	1.11
6000	1.05	1.21	1.18	1.16	1.15	1.21	1.15	1.24	1.21
6500	1.16	1.03	1.04	1.06	1.05	1.03	1.05	1.04	1.04
7000	1.37	1.36	1.30	1.22	1.26	1.28	1.23	1.31	1.31
7500	1.20	1.18	1.16	1.34	1.36	1.45	1.35	1.13	1.12
8000	1.33	1.20	1.16	1.24	1.25	1.34	1.29	1.20	1.20
8500	1.39	1.28	1.23	1.07	1.06	1.11	1.13	1.24	1.23
9000	1.28	1.06	1.07	1.09	1.08	1.07	1.01	1.04	1.04
9500	1.22	1.07	1.03	1.12	1.11	1.12	1.09	1.05	1.04
10000	1.23	1.08	1.04	1.09	1.07	1.08	1.12	1.05	1.04
10500	1.19	1.05	1.13	1.05	1.08	1.05	1.15	1.11	1.15
11000	1.11	1.14	1.17	1.09	1.16	1.15	1.20	1.19	1.22
11500	1.17	1.10	1.11	1.23	1.28	1.31	1.25	1.11	1.13
12000	1.12	1.23	1.26	1.29	1.31	1.38	1.25	1.25	1.29
12500	1.10	1.27	1.28	1.22	1.22	1.28	1.18	1.26	1.30
13000	1.31	1.25	1.29	1.16	1.20	1.23	1.15	1.23	1.27
13500	1.27	1.23	1.27	1.24	1.29	1.29	1.24	1.20	1.25
14000	1.43	1.28	1.32	1.17	1.22	1.22	1.22	1.29	1.33
14500	1.47	1.19	1.28	1.08	1.16	1.22	1.21	1.14	1.18
15000	1.39	1.13	1.11	1.10	1.18	1.24	1.29	1.14	1.12
15500	1.45	1.15	1.22	1.09	1.11	1.13	1.31	1.10	1.11
16000	1.34	1.13	1.18	1.24	1.19	1.24	1.26	1.21	1.24
16500	1.26	1.15	1.10	1.33	1.27	1.37	1.22	1.17	1.20
17000	1.12	1.17	1.26	1.27	1.20	1.32	1.14	1.21	1.28
17250	1.15	1.29	1.36	1.22	1.18	1.27	1.12	1.30	1.41
17500	1.24	1.31	1.41	1.22	1.19	1.26	1.11	1.37	1.48
17750	1.32	1.29	1.36	1.17	1.19	1.21	1.11	1.31	1.43
18000	1.33	1.23	1.30	1.19	1.24	1.26	1.16	1.23	1.36
18250	1.27	1.23	1.33	1.24	1.30	1.36	1.24	1.23	1.36
18500	1.25	1.31	1.41	1.29	1.32	1.42	1.28	1.31	1.41
18750	1.30	1.37	1.52	1.28	1.37	1.44	1.37	1.34	1.52
19000	1.44	1.36	1.50	1.29	1.34	1.46	1.40	1.33	1.47
19250	1.52	1.24	1.37	1.27	1.29	1.41	1.40	1.19	1.32
19500	1.50	1.08	1.22	1.23	1.21	1.30	1.37	1.05	1.16
19750	1.38	1.13	1.23	1.15	1.10	1.16	1.29	1.12	1.19
20000	1.33	1.22	1.36	1.13	1.02	1.05	1.21	1.15	1.28

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# Solid State USB RF SP8T Switch

# USB-1SP8T-183

## Typical Performance Data

TEST CONDITIONS: @Temperature = +25°C, Pin=8dBm

Frequency (MHz)	VSWR, Internally Terminated Ports (:1)							
	J1	J2	J3	J4	J5	J6	J7	J8
50	1.10	1.09	1.11	1.11	1.10	1.10	1.09	1.09
250	1.07	1.06	1.08	1.08	1.08	1.08	1.07	1.07
500	1.07	1.07	1.08	1.08	1.08	1.08	1.07	1.07
750	1.08	1.07	1.08	1.09	1.09	1.09	1.07	1.07
1000	1.08	1.07	1.08	1.09	1.09	1.09	1.06	1.06
1250	1.09	1.07	1.08	1.09	1.10	1.10	1.07	1.07
1500	1.09	1.07	1.09	1.09	1.10	1.10	1.07	1.06
1750	1.09	1.07	1.09	1.08	1.10	1.10	1.06	1.06
2000	1.09	1.07	1.08	1.08	1.09	1.09	1.05	1.05
2250	1.08	1.06	1.07	1.08	1.08	1.09	1.05	1.05
2500	1.08	1.06	1.06	1.07	1.07	1.07	1.04	1.04
2750	1.06	1.05	1.05	1.05	1.06	1.05	1.03	1.03
3000	1.05	1.04	1.05	1.04	1.04	1.04	1.04	1.02
3500	1.06	1.04	1.05	1.05	1.04	1.04	1.06	1.04
4000	1.09	1.06	1.07	1.08	1.08	1.09	1.09	1.07
4500	1.12	1.09	1.11	1.11	1.14	1.14	1.14	1.10
5000	1.16	1.12	1.14	1.14	1.19	1.19	1.18	1.14
5500	1.21	1.15	1.18	1.18	1.24	1.25	1.21	1.17
6000	1.22	1.18	1.19	1.18	1.27	1.26	1.23	1.20
6500	1.24	1.20	1.19	1.19	1.28	1.28	1.23	1.21
7000	1.24	1.19	1.18	1.18	1.27	1.28	1.21	1.20
7500	1.21	1.17	1.16	1.15	1.25	1.24	1.18	1.17
8000	1.18	1.14	1.12	1.13	1.20	1.21	1.14	1.14
8500	1.13	1.11	1.08	1.09	1.15	1.15	1.10	1.09
9000	1.06	1.08	1.04	1.04	1.08	1.08	1.05	1.05
9500	1.02	1.07	1.03	1.03	1.03	1.04	1.05	1.06
10000	1.05	1.09	1.08	1.07	1.07	1.06	1.09	1.11
10500	1.12	1.13	1.13	1.13	1.13	1.14	1.14	1.16
11000	1.17	1.17	1.18	1.18	1.20	1.20	1.18	1.20
11500	1.21	1.20	1.22	1.22	1.25	1.25	1.21	1.22
12000	1.24	1.23	1.23	1.25	1.27	1.28	1.21	1.24
12500	1.24	1.25	1.23	1.24	1.28	1.29	1.21	1.23
13000	1.21	1.24	1.20	1.21	1.24	1.25	1.17	1.21
13500	1.18	1.23	1.16	1.16	1.21	1.22	1.13	1.18
14000	1.12	1.19	1.08	1.08	1.14	1.14	1.08	1.12
14500	1.07	1.13	1.02	1.01	1.08	1.09	1.06	1.07
15000	1.09	1.06	1.07	1.09	1.09	1.10	1.10	1.08
15500	1.12	1.01	1.15	1.15	1.15	1.15	1.15	1.12
16000	1.17	1.08	1.22	1.22	1.22	1.21	1.20	1.19
16500	1.21	1.14	1.25	1.27	1.25	1.26	1.21	1.23
17000	1.20	1.17	1.25	1.26	1.26	1.27	1.20	1.25
17250	1.20	1.20	1.25	1.26	1.26	1.27	1.18	1.26
17500	1.17	1.22	1.24	1.22	1.27	1.25	1.18	1.26
17750	1.16	1.21	1.19	1.21	1.22	1.24	1.13	1.24
18000	1.16	1.21	1.16	1.20	1.20	1.24	1.12	1.24
18250	1.15	1.23	1.14	1.17	1.22	1.23	1.13	1.25
18500	1.12	1.20	1.12	1.11	1.19	1.19	1.12	1.21
18750	1.09	1.21	1.07	1.08	1.16	1.16	1.10	1.23
19000	1.09	1.20	1.06	1.06	1.16	1.16	1.11	1.21
19250	1.11	1.19	1.03	1.03	1.16	1.17	1.12	1.20
19500	1.13	1.19	1.01	1.02	1.16	1.18	1.13	1.20
19750	1.13	1.18	1.02	1.03	1.17	1.16	1.15	1.20
20000	1.12	1.17	1.05	1.05	1.14	1.16	1.13	1.18

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# Solid State USB RF SP8T Switch

# USB-1SP8T-183

## Typical Performance Data

TEST CONDITIONS: @Temperature = +25°C, Pin=8dBm

Frequency (MHz)	Isolation @ Active states (dB)							
	COM-1	COM-3	COM-5	COM-7	J2-J3	J4-J5	J6-J7	J7-J8
50	92.82	90.22	91.78	86.30	93.72	94.96	102.50	83.07
250	83.45	82.13	82.69	83.27	102.63	124.83	105.30	88.45
500	79.08	77.45	77.73	78.44	103.02	113.34	109.58	84.94
750	75.11	73.66	73.70	74.55	104.17	100.30	102.08	80.69
1000	72.42	71.15	70.95	71.97	110.25	111.77	117.17	78.00
1250	70.49	69.47	69.24	70.07	110.58	103.95	108.12	74.98
1500	69.02	68.04	67.90	68.72	120.32	104.98	114.07	72.48
1750	68.16	67.07	66.78	67.80	104.09	114.34	112.52	71.13
2000	67.47	66.28	66.06	66.96	99.98	108.00	101.58	70.76
2250	66.96	65.75	65.44	66.53	106.28	101.22	104.13	70.89
2500	66.45	65.40	64.99	66.14	105.19	104.64	113.60	70.76
2750	66.20	65.10	64.70	65.70	114.81	110.86	106.19	69.64
3000	65.86	64.75	64.28	65.33	106.55	115.54	114.87	68.65
3500	65.42	64.19	63.72	64.90	104.77	112.24	110.40	68.05
4000	64.97	63.80	63.52	64.56	95.52	115.43	103.29	68.08
4500	64.79	63.51	63.28	64.31	105.33	101.68	116.48	67.57
5000	64.53	63.50	63.15	64.41	99.83	112.24	101.25	66.94
5500	64.47	63.31	63.25	64.12	101.79	122.08	100.51	66.57
6000	64.50	63.10	63.09	64.29	94.11	102.09	110.16	67.67
6500	64.08	62.84	62.78	64.05	91.94	101.27	108.19	67.57
7000	63.66	62.41	62.24	63.57	89.57	103.55	109.74	65.96
7500	62.81	62.08	61.73	62.77	87.79	104.84	102.55	67.47
8000	62.11	61.59	61.28	62.11	83.88	103.35	100.57	70.09
8500	61.73	61.29	60.98	61.85	84.31	104.73	108.91	67.99
9000	61.58	61.33	60.97	61.78	86.12	113.17	133.63	67.97
9500	61.55	61.58	61.06	61.89	87.31	107.76	102.87	68.99
10000	61.75	61.97	61.38	62.18	87.62	101.31	95.58	69.39
10500	61.99	62.43	61.57	62.47	93.60	107.40	111.25	69.62
11000	62.37	62.75	61.94	62.67	100.83	103.19	106.30	68.23
11500	62.55	63.08	62.30	62.90	104.58	103.61	114.72	67.01
12000	62.86	63.27	62.63	63.33	92.01	100.25	108.08	67.27
12500	63.23	63.38	63.01	63.73	92.48	103.77	103.16	66.79
13000	63.52	63.60	63.41	63.95	96.71	107.19	99.80	65.82
13500	63.82	63.98	63.80	64.21	101.83	101.94	92.34	64.97
14000	64.01	63.76	63.82	64.04	90.24	99.39	92.91	63.49
14500	63.60	63.14	63.59	63.20	100.81	111.86	92.17	63.21
15000	62.86	62.22	62.92	62.17	100.91	99.23	87.58	63.65
15500	62.05	61.07	62.01	61.45	102.96	97.55	88.12	61.31
16000	61.19	59.85	60.94	60.80	107.15	95.25	89.65	60.08
16500	60.50	59.06	59.94	60.01	103.44	95.66	91.38	60.93
17000	59.93	58.11	59.10	59.20	94.78	96.57	88.06	59.78
17250	59.55	57.77	58.70	58.86	92.33	96.24	87.16	58.95
17500	59.14	57.24	58.31	58.44	90.08	94.10	87.96	58.27
17750	58.67	56.78	57.93	57.89	94.30	95.73	88.90	57.89
18000	58.17	56.33	57.60	57.34	98.04	94.07	88.66	57.76
18250	57.79	55.90	57.28	56.77	89.83	91.44	89.93	57.95
18500	57.36	55.52	56.84	56.34	89.95	95.82	95.18	58.00
18750	56.97	55.09	56.42	55.89	88.49	96.79	90.16	57.35
19000	56.59	54.72	56.09	55.51	84.25	100.81	87.69	56.24
19250	56.16	54.39	55.76	55.16	85.82	97.42	87.89	55.26
19500	55.70	54.09	55.46	54.82	85.39	88.94	88.95	54.89
19750	55.36	53.75	55.07	54.52	82.26	89.87	87.13	55.40
20000	55.19	53.51	54.73	54.36	79.91	88.23	84.94	56.04

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# Solid State USB RF SP8T Switch

# USB-1SP8T-183

## Typical Performance Data

TEST CONDITIONS: @Temperature = +25°C, Pin=8dBm

Frequency (MHz)	Isolation @ Disconnected state (dB)							
	COM-1	COM-2	COM-3	COM-4	COM-5	COM-6	COM-7	COM-8
50	101.43	84.50	102.68	84.56	84.84	88.41	101.50	83.96
250	105.86	105.22	109.38	102.39	79.89	79.68	105.19	97.05
500	114.78	104.31	110.84	96.60	75.66	75.43	106.63	100.78
750	105.03	108.60	105.06	97.01	71.67	71.84	112.07	121.42
1000	112.47	113.08	112.88	95.36	68.99	69.38	116.13	105.00
1250	126.42	102.92	113.20	94.02	67.45	67.73	106.89	107.38
1500	112.37	107.69	106.06	97.46	66.34	66.48	106.20	104.20
1750	109.51	110.60	108.17	99.46	65.25	65.40	128.35	102.77
2000	119.04	119.73	112.65	98.53	64.34	64.49	116.35	109.84
2250	106.50	113.80	110.27	121.11	63.54	63.58	102.50	101.60
2500	102.37	107.13	106.39	100.19	62.83	62.81	103.71	100.25
2750	109.74	106.99	113.47	98.46	62.25	62.40	104.60	114.84
3000	106.03	106.85	104.72	101.20	61.99	62.08	125.05	106.99
3500	114.59	118.03	104.12	98.18	62.00	61.94	107.06	107.41
4000	104.17	102.81	106.66	104.78	62.31	62.21	116.24	107.25
4500	107.93	108.99	106.08	106.31	62.59	62.47	109.19	108.66
5000	110.54	105.80	117.50	105.55	63.16	62.96	127.64	109.13
5500	108.16	106.90	109.06	107.51	64.01	63.84	103.52	136.99
6000	117.57	117.18	103.70	111.20	64.50	64.13	99.25	104.21
6500	108.34	108.20	105.04	106.27	64.85	64.41	103.02	102.81
7000	107.57	110.17	127.42	104.59	65.30	65.14	109.12	107.45
7500	114.38	102.51	101.63	117.51	66.80	66.89	109.53	100.99
8000	106.29	115.67	113.35	108.59	68.36	69.16	104.20	107.66
8500	109.20	114.83	114.33	109.12	69.09	70.37	117.20	111.58
9000	111.01	105.58	113.33	101.46	68.91	71.17	104.42	104.32
9500	103.11	108.02	115.19	107.55	68.32	71.05	107.42	107.48
10000	111.43	108.33	109.22	97.50	67.63	70.52	100.06	130.51
10500	113.95	101.86	105.53	98.59	66.64	68.56	100.43	103.70
11000	106.83	113.34	118.47	110.82	65.08	66.44	112.14	101.33
11500	125.62	103.40	109.98	106.34	63.75	64.76	108.53	101.97
12000	105.12	105.00	111.63	99.51	63.10	63.69	113.46	102.71
12500	110.39	106.65	104.12	94.38	62.79	62.69	103.22	110.44
13000	108.68	98.26	114.36	92.23	61.83	61.51	102.05	101.75
13500	115.05	104.35	103.18	95.90	60.61	60.02	97.60	98.69
14000	102.95	118.09	96.53	99.27	59.87	59.13	102.86	114.78
14500	105.88	103.91	114.88	92.31	59.45	58.52	101.03	99.77
15000	112.04	100.66	98.74	89.20	58.58	57.56	90.28	89.55
15500	99.32	113.09	94.62	89.77	57.06	56.07	103.78	103.37
16000	103.30	100.15	102.44	99.05	55.79	54.71	97.39	103.21
16500	108.34	104.52	105.80	92.79	55.69	54.57	104.93	103.94
17000	103.32	100.14	98.62	90.70	55.76	54.68	97.73	100.38
17250	106.10	102.30	97.33	90.71	55.69	54.53	92.16	98.53
17500	104.85	100.42	96.34	89.01	55.56	54.32	96.41	99.62
17750	101.04	101.12	94.36	90.02	55.44	54.12	94.91	98.29
18000	107.53	109.20	93.00	94.89	55.29	53.95	101.03	98.70
18250	107.02	110.07	99.01	104.41	55.24	53.85	96.96	90.76
18500	105.01	101.98	103.13	105.50	55.07	53.68	87.48	86.81
18750	107.67	104.14	102.08	98.46	54.57	53.26	92.50	89.40
19000	109.87	111.50	97.15	96.40	54.10	52.81	97.21	91.80
19250	100.83	101.69	102.22	95.38	53.53	52.26	94.69	95.29
19500	102.32	103.85	101.01	95.21	52.84	51.59	91.77	92.76
19750	99.94	100.04	107.61	96.08	52.32	51.06	93.03	97.58
20000	104.28	114.46	100.72	100.39	51.97	50.76	92.86	93.33

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# Solid State USB RF SP8T Switch

# USB-1SP8T-183

## Typical Performance Data

TEST CONDITIONS: @Temperature = +50°C, Pin=8dBm

Frequency (MHz)	Insertion Loss							
	(dB)							
	COM-J1	COM-J2	COM-J3	COM-J4	COM-J5	COM-J6	COM-J7	COM-J8
50	1.71	1.72	1.72	1.71	1.72	1.72	1.73	1.71
250	1.95	1.96	1.92	1.91	1.92	1.92	1.96	1.95
500	2.14	2.16	2.08	2.07	2.07	2.07	2.16	2.14
750	2.30	2.31	2.20	2.19	2.20	2.20	2.31	2.29
1000	2.39	2.41	2.32	2.32	2.32	2.33	2.40	2.39
1250	2.41	2.43	2.39	2.39	2.39	2.39	2.43	2.41
1500	2.46	2.48	2.45	2.45	2.46	2.46	2.48	2.47
1750	2.56	2.59	2.51	2.51	2.51	2.51	2.59	2.58
2000	2.67	2.70	2.54	2.54	2.55	2.55	2.69	2.67
2250	2.74	2.76	2.58	2.58	2.59	2.58	2.76	2.74
2500	2.79	2.82	2.64	2.65	2.65	2.65	2.82	2.80
2750	2.85	2.87	2.71	2.72	2.72	2.71	2.87	2.85
3000	2.94	2.96	2.78	2.79	2.79	2.78	2.95	2.93
3500	3.07	3.08	2.87	2.88	2.88	2.87	3.06	3.04
4000	3.16	3.18	2.93	2.94	2.93	2.93	3.16	3.14
4500	3.25	3.26	3.00	2.99	3.00	2.99	3.25	3.22
5000	3.31	3.33	3.08	3.07	3.09	3.07	3.31	3.29
5500	3.40	3.42	3.16	3.15	3.19	3.15	3.43	3.40
6000	3.55	3.56	3.22	3.20	3.24	3.21	3.59	3.55
6500	3.56	3.58	3.26	3.23	3.25	3.24	3.57	3.55
7000	3.87	3.87	3.43	3.43	3.45	3.42	3.87	3.84
7500	3.95	3.96	3.66	3.64	3.73	3.66	3.96	3.92
8000	4.04	4.04	3.77	3.73	3.81	3.77	4.05	4.01
8500	4.20	4.20	3.80	3.75	3.81	3.79	4.20	4.15
9000	4.25	4.26	3.86	3.80	3.86	3.82	4.27	4.21
9500	4.31	4.31	3.92	3.82	3.91	3.84	4.34	4.26
10000	4.37	4.39	3.95	3.89	3.94	3.91	4.40	4.35
10500	4.45	4.47	4.00	3.93	3.99	3.96	4.50	4.43
11000	4.56	4.60	4.08	4.03	4.08	4.06	4.62	4.57
11500	4.64	4.67	4.24	4.18	4.27	4.19	4.69	4.62
12000	4.78	4.83	4.35	4.27	4.38	4.27	4.84	4.79
12500	4.94	4.93	4.40	4.30	4.42	4.32	4.94	4.87
13000	5.05	5.05	4.48	4.39	4.51	4.42	5.06	4.99
13500	5.19	5.21	4.62	4.55	4.64	4.58	5.19	5.13
14000	5.31	5.35	4.68	4.61	4.71	4.65	5.33	5.27
14500	5.40	5.43	4.76	4.67	4.80	4.74	5.40	5.32
15000	5.50	5.49	4.85	4.74	4.91	4.86	5.52	5.39
15500	5.61	5.68	4.90	4.83	4.93	4.99	5.59	5.53
16000	5.62	5.65	4.97	4.84	4.97	4.93	5.65	5.56
16500	5.74	5.72	5.11	4.94	5.11	4.96	5.75	5.64
17000	5.82	5.86	5.16	4.99	5.15	5.00	5.85	5.76
17250	5.92	5.94	5.16	5.00	5.14	5.01	5.92	5.85
17500	5.97	6.02	5.22	5.05	5.19	5.05	6.01	5.95
17750	5.99	6.01	5.30	5.09	5.26	5.08	6.06	5.95
18000	6.01	6.02	5.42	5.14	5.38	5.12	6.15	5.93
18250	6.09	6.14	5.55	5.21	5.54	5.20	6.29	6.03
18500	6.23	6.29	5.66	5.30	5.66	5.30	6.43	6.16
18750	6.28	6.38	5.78	5.33	5.79	5.35	6.58	6.24
19000	6.35	6.44	5.83	5.39	5.85	5.43	6.63	6.30
19250	6.41	6.46	5.90	5.42	5.90	5.49	6.68	6.30
19500	6.42	6.42	5.95	5.42	5.92	5.52	6.72	6.28
19750	6.44	6.46	5.93	5.44	5.87	5.53	6.71	6.30
20000	6.49	6.59	5.95	5.48	5.85	5.54	6.74	6.40

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# Solid State USB RF SP8T Switch

# USB-1SP8T-183

## Typical Performance Data

TEST CONDITIONS: @Temperature = +50°C, Pin=8dBm

Frequency (MHz)	VSWR, Active Ports (:1)								
	COM	J1	J2	J3	J4	J5	J6	J7	J8
50	1.28	1.28	1.28	1.28	1.27	1.28	1.28	1.28	1.28
250	1.20	1.21	1.21	1.22	1.22	1.22	1.23	1.22	1.22
500	1.12	1.15	1.15	1.20	1.20	1.19	1.21	1.16	1.15
750	1.03	1.10	1.09	1.18	1.17	1.17	1.19	1.09	1.09
1000	1.07	1.09	1.08	1.16	1.15	1.15	1.17	1.06	1.07
1250	1.13	1.11	1.12	1.13	1.13	1.13	1.14	1.11	1.11
1500	1.17	1.15	1.16	1.11	1.12	1.12	1.10	1.16	1.16
1750	1.18	1.19	1.19	1.08	1.08	1.10	1.06	1.20	1.19
2000	1.15	1.20	1.19	1.02	1.03	1.04	1.02	1.19	1.18
2250	1.08	1.15	1.13	1.06	1.04	1.04	1.07	1.11	1.10
2500	1.07	1.05	1.03	1.13	1.12	1.12	1.14	1.02	1.01
2750	1.17	1.12	1.10	1.20	1.18	1.19	1.20	1.14	1.12
3000	1.23	1.21	1.19	1.24	1.22	1.24	1.23	1.22	1.19
3500	1.21	1.19	1.17	1.22	1.21	1.21	1.20	1.16	1.14
4000	1.27	1.13	1.10	1.14	1.13	1.13	1.11	1.12	1.09
4500	1.14	1.18	1.15	1.09	1.07	1.08	1.04	1.17	1.13
5000	1.26	1.15	1.13	1.10	1.09	1.13	1.07	1.11	1.09
5500	1.23	1.10	1.05	1.18	1.15	1.24	1.15	1.13	1.10
6000	1.05	1.22	1.19	1.17	1.16	1.22	1.16	1.25	1.22
6500	1.15	1.03	1.03	1.06	1.04	1.04	1.04	1.03	1.03
7000	1.39	1.37	1.33	1.24	1.27	1.30	1.25	1.34	1.34
7500	1.22	1.19	1.16	1.36	1.39	1.48	1.39	1.13	1.12
8000	1.37	1.22	1.18	1.25	1.25	1.35	1.29	1.22	1.23
8500	1.41	1.29	1.23	1.05	1.04	1.10	1.10	1.24	1.23
9000	1.31	1.08	1.06	1.10	1.09	1.09	1.03	1.03	1.03
9500	1.23	1.07	1.02	1.12	1.10	1.11	1.07	1.05	1.04
10000	1.25	1.09	1.03	1.09	1.06	1.08	1.09	1.06	1.04
10500	1.17	1.07	1.16	1.04	1.07	1.04	1.15	1.14	1.18
11000	1.10	1.17	1.20	1.13	1.21	1.19	1.25	1.22	1.25
11500	1.18	1.10	1.15	1.27	1.33	1.35	1.31	1.13	1.17
12000	1.14	1.24	1.28	1.27	1.29	1.36	1.24	1.27	1.32
12500	1.16	1.24	1.25	1.18	1.18	1.24	1.13	1.24	1.27
13000	1.32	1.22	1.24	1.15	1.17	1.21	1.11	1.20	1.23
13500	1.27	1.19	1.22	1.19	1.23	1.24	1.18	1.16	1.19
14000	1.41	1.26	1.30	1.15	1.19	1.19	1.19	1.25	1.28
14500	1.43	1.19	1.29	1.11	1.17	1.21	1.24	1.14	1.19
15000	1.35	1.13	1.16	1.13	1.21	1.25	1.35	1.08	1.07
15500	1.46	1.18	1.27	1.12	1.15	1.16	1.35	1.12	1.15
16000	1.36	1.08	1.14	1.17	1.13	1.17	1.22	1.14	1.17
16500	1.32	1.15	1.05	1.28	1.23	1.33	1.16	1.14	1.17
17000	1.17	1.16	1.21	1.28	1.21	1.33	1.15	1.16	1.24
17250	1.18	1.31	1.34	1.24	1.19	1.28	1.12	1.28	1.39
17500	1.25	1.37	1.42	1.23	1.19	1.27	1.11	1.38	1.49
17750	1.28	1.32	1.37	1.22	1.22	1.26	1.13	1.32	1.45
18000	1.25	1.27	1.33	1.27	1.27	1.31	1.19	1.28	1.38
18250	1.21	1.25	1.37	1.31	1.34	1.40	1.26	1.28	1.39
18500	1.21	1.36	1.49	1.35	1.37	1.48	1.34	1.37	1.48
18750	1.28	1.39	1.59	1.33	1.40	1.49	1.41	1.39	1.56
19000	1.42	1.35	1.55	1.33	1.38	1.49	1.43	1.36	1.51
19250	1.50	1.25	1.40	1.30	1.31	1.44	1.41	1.23	1.35
19500	1.53	1.10	1.24	1.25	1.23	1.34	1.39	1.08	1.18
19750	1.43	1.12	1.25	1.15	1.11	1.19	1.31	1.16	1.20
20000	1.39	1.22	1.39	1.09	1.02	1.03	1.21	1.21	1.30

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# Solid State USB RF SP8T Switch

# USB-1SP8T-183

## Typical Performance Data

TEST CONDITIONS: @Temperature = +50°C, Pin=8dBm

Frequency (MHz)	VSWR, Internally Terminated Ports (:1)							
	J1	J2	J3	J4	J5	J6	J7	J8
50	1.09	1.09	1.10	1.10	1.10	1.10	1.09	1.09
250	1.07	1.06	1.08	1.08	1.08	1.08	1.07	1.07
500	1.07	1.06	1.08	1.08	1.08	1.08	1.06	1.07
750	1.07	1.06	1.08	1.08	1.08	1.08	1.06	1.06
1000	1.07	1.06	1.07	1.08	1.08	1.08	1.06	1.06
1250	1.08	1.07	1.08	1.08	1.09	1.09	1.06	1.06
1500	1.08	1.07	1.08	1.08	1.09	1.09	1.06	1.06
1750	1.09	1.07	1.08	1.08	1.10	1.09	1.06	1.06
2000	1.08	1.07	1.08	1.08	1.09	1.09	1.05	1.05
2250	1.08	1.06	1.07	1.07	1.08	1.09	1.05	1.04
2500	1.08	1.06	1.06	1.07	1.07	1.07	1.04	1.04
2750	1.06	1.05	1.06	1.05	1.06	1.05	1.04	1.03
3000	1.06	1.04	1.05	1.04	1.05	1.04	1.04	1.02
3500	1.06	1.04	1.05	1.05	1.05	1.05	1.06	1.04
4000	1.09	1.06	1.07	1.08	1.08	1.09	1.10	1.07
4500	1.12	1.08	1.10	1.10	1.13	1.14	1.14	1.10
5000	1.16	1.12	1.14	1.14	1.19	1.18	1.17	1.13
5500	1.21	1.15	1.17	1.18	1.24	1.25	1.21	1.17
6000	1.23	1.18	1.19	1.19	1.28	1.27	1.24	1.20
6500	1.24	1.20	1.20	1.19	1.29	1.29	1.24	1.22
7000	1.24	1.20	1.18	1.19	1.28	1.29	1.22	1.22
7500	1.21	1.17	1.16	1.16	1.25	1.25	1.19	1.18
8000	1.18	1.14	1.12	1.13	1.20	1.21	1.14	1.14
8500	1.14	1.10	1.08	1.09	1.15	1.16	1.09	1.08
9000	1.07	1.06	1.02	1.03	1.07	1.07	1.03	1.03
9500	1.01	1.06	1.03	1.03	1.02	1.02	1.05	1.06
10000	1.06	1.10	1.09	1.08	1.08	1.07	1.10	1.12
10500	1.13	1.16	1.15	1.15	1.15	1.16	1.16	1.18
11000	1.18	1.19	1.18	1.19	1.21	1.21	1.20	1.22
11500	1.20	1.22	1.20	1.20	1.25	1.25	1.22	1.24
12000	1.21	1.22	1.20	1.21	1.25	1.25	1.20	1.23
12500	1.21	1.21	1.19	1.20	1.25	1.26	1.18	1.20
13000	1.17	1.19	1.17	1.17	1.21	1.21	1.14	1.16
13500	1.16	1.19	1.14	1.16	1.18	1.19	1.10	1.13
14000	1.11	1.18	1.10	1.10	1.12	1.13	1.05	1.09
14500	1.07	1.16	1.05	1.05	1.07	1.08	1.02	1.05
15000	1.06	1.11	1.03	1.04	1.06	1.07	1.05	1.03
15500	1.09	1.05	1.09	1.10	1.10	1.11	1.10	1.07
16000	1.15	1.03	1.16	1.18	1.17	1.19	1.14	1.14
16500	1.21	1.10	1.22	1.25	1.23	1.26	1.18	1.20
17000	1.22	1.16	1.26	1.28	1.27	1.29	1.20	1.24
17250	1.23	1.20	1.28	1.28	1.28	1.30	1.20	1.26
17500	1.22	1.24	1.29	1.26	1.30	1.29	1.22	1.29
17750	1.20	1.24	1.24	1.24	1.27	1.28	1.17	1.27
18000	1.20	1.25	1.23	1.22	1.26	1.27	1.18	1.27
18250	1.17	1.26	1.23	1.19	1.28	1.25	1.18	1.27
18500	1.15	1.27	1.19	1.14	1.26	1.23	1.17	1.27
18750	1.12	1.28	1.13	1.09	1.21	1.19	1.14	1.26
19000	1.11	1.26	1.11	1.06	1.20	1.17	1.14	1.24
19250	1.12	1.24	1.08	1.05	1.20	1.18	1.15	1.23
19500	1.13	1.22	1.05	1.03	1.19	1.18	1.15	1.21
19750	1.11	1.21	1.05	1.01	1.21	1.16	1.18	1.21
20000	1.09	1.19	1.05	1.03	1.19	1.14	1.18	1.19

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# Solid State USB RF SP8T Switch

# USB-1SP8T-183

## Typical Performance Data

TEST CONDITIONS: @Temperature = +50°C, Pin=8dBm

Frequency (MHz)	Isolation @ Active states (dB)							
	COM-1	COM-3	COM-5	COM-7	J2-J3	J4-J5	J6-J7	J7-J8
50	91.03	89.52	97.15	92.00	101.07	92.84	94.44	84.88
250	83.04	82.42	82.46	83.38	107.26	106.98	109.49	86.64
500	78.73	77.41	77.65	78.69	103.76	103.87	113.23	84.20
750	75.16	73.71	73.25	74.52	106.14	109.28	112.00	80.70
1000	71.97	70.79	70.64	71.61	107.22	116.93	108.84	77.42
1250	70.14	69.18	68.74	69.81	103.34	109.33	119.72	74.24
1500	68.72	67.80	67.51	68.57	114.37	102.70	123.89	71.89
1750	67.72	66.74	66.53	67.46	106.71	100.26	105.74	70.48
2000	67.15	65.85	65.77	66.78	99.20	117.12	104.02	70.33
2250	66.50	65.37	65.00	66.14	108.76	105.54	112.32	70.41
2500	66.06	65.07	64.67	65.73	107.04	103.72	109.63	70.22
2750	65.75	64.70	64.32	65.41	101.32	114.63	101.88	69.02
3000	65.40	64.29	63.94	65.16	107.63	104.22	110.63	68.00
3500	64.92	63.85	63.46	64.50	99.31	112.34	118.35	67.41
4000	64.57	63.37	63.07	64.23	104.51	107.74	116.71	67.45
4500	64.34	63.06	62.84	63.99	106.36	105.13	99.41	67.02
5000	64.10	63.07	62.87	63.97	116.64	108.51	113.13	66.39
5500	63.96	62.90	62.92	63.85	103.32	100.12	104.81	66.24
6000	64.07	62.77	62.73	63.98	95.00	110.63	99.26	67.31
6500	63.80	62.57	62.51	63.76	95.39	110.59	104.54	67.13
7000	63.45	62.41	62.10	63.43	92.50	111.94	102.00	65.67
7500	62.71	62.07	61.58	62.72	89.68	107.04	102.29	67.37
8000	62.07	61.61	61.21	62.19	85.32	111.35	97.00	69.58
8500	61.78	61.24	61.06	61.76	84.58	102.25	108.54	67.35
9000	61.51	61.24	61.07	61.75	85.47	103.58	100.43	67.47
9500	61.58	61.43	61.16	61.89	92.86	104.65	98.95	68.48
10000	61.82	61.90	61.36	62.10	91.08	106.65	101.79	69.02
10500	61.98	62.31	61.74	62.42	85.90	109.34	105.32	69.55
11000	62.19	62.59	62.03	62.63	87.40	107.34	100.20	67.69
11500	62.40	63.02	62.37	62.85	93.12	115.77	105.53	67.39
12000	62.76	63.25	62.77	63.17	101.03	109.22	115.04	68.04
12500	63.11	63.46	63.20	63.64	102.63	119.33	100.67	67.39
13000	63.41	64.00	63.60	64.09	94.45	103.18	95.48	66.64
13500	63.68	64.36	63.85	64.09	91.67	95.67	92.98	65.63
14000	63.83	64.28	64.05	63.96	98.39	95.47	92.73	64.42
14500	63.73	63.87	63.88	63.64	90.88	97.13	90.41	64.26
15000	63.29	62.96	63.32	62.90	95.11	109.15	84.77	64.23
15500	62.69	61.75	62.38	62.16	98.58	93.77	86.86	61.89
16000	61.77	60.31	61.34	61.19	95.85	92.40	88.96	60.49
16500	61.04	59.35	60.43	60.27	101.18	92.74	88.57	61.08
17000	60.29	58.52	59.66	59.46	98.95	93.09	86.87	60.00
17250	59.98	58.09	59.27	59.06	101.50	92.87	86.53	58.98
17500	59.63	57.58	58.93	58.66	100.24	94.15	87.39	58.35
17750	59.08	57.16	58.58	58.10	94.77	93.42	87.74	58.07
18000	58.60	56.67	58.14	57.45	82.98	88.55	87.78	58.05
18250	58.22	56.28	57.80	57.01	84.25	91.56	89.27	58.08
18500	57.78	55.93	57.33	56.60	80.45	93.23	93.36	58.04
18750	57.38	55.46	56.88	56.11	77.92	96.47	87.23	57.39
19000	56.92	55.10	56.54	55.79	74.65	99.75	88.33	56.44
19250	56.60	54.73	56.18	55.43	72.67	94.51	89.09	55.51
19500	56.22	54.41	55.89	55.21	72.06	92.36	86.94	55.07
19750	55.93	54.12	55.50	54.89	71.83	90.36	86.63	55.64
20000	55.87	53.89	55.12	54.76	71.30	88.34	89.17	56.43

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# Solid State USB RF SP8T Switch

# USB-1SP8T-183

## Typical Performance Data

TEST CONDITIONS: @Temperature = +50°C, Pin=8dBm

Frequency (MHz)	Isolation @ Disconnected state (dB)							
	COM-1	COM-2	COM-3	COM-4	COM-5	COM-6	COM-7	COM-8
50	95.00	85.54	93.00	84.56	83.51	92.94	103.33	84.40
250	107.22	102.16	101.55	98.55	79.47	79.91	113.57	106.07
500	110.59	109.99	117.04	102.18	74.88	75.17	109.84	103.68
750	109.61	111.10	105.50	98.61	71.23	71.45	111.22	113.88
1000	110.19	111.14	108.47	93.93	68.69	68.93	124.43	102.28
1250	105.00	104.41	106.69	94.46	67.06	67.33	113.19	108.09
1500	111.08	116.12	106.68	93.67	65.93	66.03	104.60	103.35
1750	108.58	106.88	107.69	96.50	64.82	64.95	107.41	102.41
2000	110.08	107.60	117.12	95.22	63.90	63.95	105.23	121.07
2250	113.32	104.49	113.05	103.95	62.94	63.07	106.02	102.21
2500	116.50	109.52	107.50	102.15	62.22	62.27	104.19	102.32
2750	109.31	115.54	115.27	95.38	61.65	61.71	99.65	101.68
3000	107.05	111.06	113.83	93.35	61.30	61.36	112.52	107.95
3500	104.77	118.58	99.39	95.59	61.19	61.22	106.20	109.86
4000	114.24	105.57	102.61	102.11	61.42	61.40	104.28	105.91
4500	110.90	106.95	109.83	120.02	61.75	61.59	106.29	102.07
5000	113.09	104.46	106.06	106.00	62.30	62.15	115.97	107.16
5500	110.99	106.90	110.77	109.28	63.04	62.85	104.52	109.33
6000	108.73	122.52	101.66	108.58	63.50	63.16	101.85	97.52
6500	104.76	110.68	105.92	103.68	63.60	63.13	111.41	117.74
7000	117.56	107.02	109.52	105.42	63.90	63.61	106.97	110.65
7500	107.91	100.96	109.67	102.33	65.39	65.43	103.07	108.45
8000	112.10	113.01	113.51	98.31	67.31	67.61	119.71	120.14
8500	119.57	109.94	102.79	100.75	68.45	69.19	112.68	112.52
9000	102.92	103.94	105.78	105.85	68.69	69.94	119.63	112.72
9500	102.09	118.07	106.72	100.93	68.99	71.06	101.50	107.46
10000	125.28	114.72	101.13	99.53	68.82	71.75	106.57	112.97
10500	100.17	100.74	110.64	98.89	68.25	70.70	104.91	104.22
11000	119.85	100.63	117.44	96.52	66.79	68.54	102.85	109.83
11500	107.77	107.83	108.83	100.58	65.61	66.54	105.85	99.80
12000	100.34	102.76	107.74	100.20	64.82	65.20	100.82	109.02
12500	98.64	113.17	102.66	92.97	64.25	64.17	109.60	108.81
13000	110.66	97.90	108.73	92.59	63.11	62.57	117.09	103.14
13500	99.94	111.02	108.81	92.91	61.85	61.14	99.11	96.40
14000	106.74	102.21	96.94	101.78	60.97	60.12	102.96	102.37
14500	104.44	94.72	101.20	89.20	60.19	59.29	101.27	96.05
15000	115.74	94.52	99.28	85.95	59.12	58.20	90.08	91.89
15500	100.97	95.97	96.62	89.41	57.74	56.76	98.68	113.03
16000	100.14	103.66	101.23	93.56	56.52	55.44	100.49	98.77
16500	99.38	98.69	105.17	91.71	56.20	55.11	106.52	104.74
17000	104.60	100.29	97.56	90.29	56.38	55.22	95.76	97.53
17250	113.09	104.87	100.31	90.23	56.41	55.16	96.70	98.53
17500	110.42	96.20	108.53	89.24	56.27	55.03	97.01	97.25
17750	103.62	101.24	95.75	89.24	56.07	54.74	100.15	107.25
18000	105.94	114.02	100.35	98.44	55.76	54.48	112.65	97.88
18250	112.22	105.29	98.01	99.00	55.56	54.25	94.40	90.11
18500	109.53	107.88	106.33	96.91	55.34	54.01	87.49	88.06
18750	104.10	113.43	106.93	96.38	54.90	53.58	92.62	90.63
19000	101.15	107.63	102.17	94.33	54.46	53.18	93.06	91.50
19250	109.63	101.28	101.58	92.03	53.97	52.71	92.67	97.69
19500	98.58	101.28	100.59	91.63	53.33	52.06	93.42	97.64
19750	99.72	105.42	106.64	93.24	52.73	51.50	93.52	101.70
20000	101.30	103.37	102.40	93.66	52.32	51.21	95.05	93.39

**Notes**

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits' standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)

